

## CLAIMS

What is claimed is:

- 5           1.       A laser system, comprising:  
a laser device for the generation of laser radiation;  
a light guide for guiding the generated laser radiation;  
a data medium for identity data connected to the light guide; and  
a readout device for reading out the identity data.
- 10           2.       The laser system of claim 1, wherein the readout device is arranged within the  
laser device.
3.       The laser system of claim 1, wherein the data medium is permanently connected  
15           to the light guide.
4.       The laser system of claim 1, wherein the data medium is a transponder.
5.       The laser system of claim 1, wherein the identity data contains information about  
20           at least one of a manufacturer of the light guide, an end date of use of the light guide, a  
transmission of the light guide, a type designation of the light guide, a maximum  
transmission power of the light guide, a fiber diameter of the light guide.

6. The laser system of claim 1, wherein the data medium is readable and writable and a write device is arranged in the laser device for the non-contacting writing of data into the data medium.

5 7. The laser system of claim 6, wherein the laser device only emits laser radiation to the light guide when the write device has a data connection to the data medium.

8. The laser system of claim 1, wherein a memory device is arranged in the readout device.

10 9. The laser system of claim 1, wherein application data is saved in the data medium regarding a specific application of the light guide in conjunction with the laser device.

15 10. The laser system of claim 9, wherein the application data contains information about at least one of a laser energy passed to the light guide, a number of treatments with the light guide, a date of the treatment with the light guide, or an identification data of the laser device, and wherein the application data is saved in the data medium using the memory device.

20 11. The laser system of claim 9, wherein the application data saved in the data medium cannot be deleted, overwritten, or modified.

12. The laser system of claim 9, wherein the laser system further comprises an evaluation device for reading out and evaluating the identity data and the application data that has been saved.

5 13. The laser system of claim 1, wherein the identity data and the application data are saved encrypted in the data medium.

14. The laser system of claim 1, wherein the light guide is mounted in a releasable manner on the laser device using a mounting device.

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15. The laser system of claim 14, wherein the data medium is essentially mounted inseparably in the part of the mounting device fitted to the light guide by at least one of the method of encapsulation, welding, or gluing.

15 16. The laser system of claim 14, wherein the mounting device is one of a plug, screw, or bayonet connection.

17. The laser system of claim 1, wherein the laser system is a medical laser system.

18. A light guide system, comprising:  
a light guide for guiding laser radiation, wherein the light guide can be releasably coupled  
to a laser device using a mounting device; and  
a data medium for identity data connected to the light guide.

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19. The light guide system of claim 18, wherein the data medium is permanently  
connected to the light guide.

20. The light guide system of claim 18, wherein the data medium is a transponder.

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21. The light guide system of claim 18, wherein the identity data contains information  
about at least one of a manufacturer of the light guide, an end date for usage of the light  
guide, a transmission of the light guide, a type designation of the light guide, a maximum  
transmission power of the light guide, or a fiber diameter of the light guide.

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22. The light guide system of claim 18, wherein the data medium is readable and  
writable in order to save application data about a specific application of the light guide in  
conjunction with a laser device.

23. The light guide system of claim 22, wherein the application data contains information about at least one of a laser energy passed to the light guide, a number of treatments with the light guide, a date for the treatment with the light guide, or an identification data of the laser device, and wherein application data already saved in the data medium cannot be deleted, overwritten, or modified.

24. The light guide system of claim 22, wherein the identity data and the application data are saved encrypted in the data medium.

25. The light guide system of claim 18, further comprising a mounting device, wherein the mounting device is constructed of a material that essentially does not screen electromagnetic radiation in the frequency range of a transmission and reception range of the transponder.

26. The light guide system of claim 25, wherein the mounting device is constructed of plastic.

27. The light guide system of claim 25, wherein the light guide with the mounting device is essentially connected inseparably and the transponder is welded to the mounting device.

28. The light guide system of claim 25, wherein the light guide is essentially inseparably connected to the mounting device and the transponder is glued to the mounting device.

5 29. The light guide system of claim 25, wherein the light guide is essentially inseparably connected to the mounting device and the transponder is encapsulated in the mounting device.

10 30. The light guide system of claim 18, wherein the light guide is an expendable light guide.